

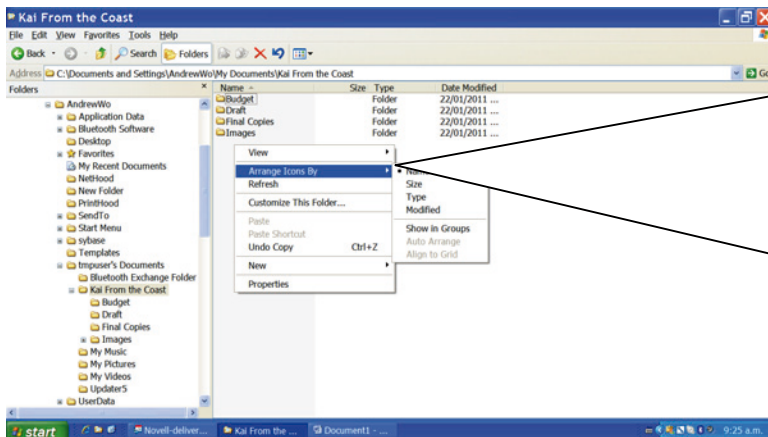
Identifies key feature.

This text box contains descriptions of the key feature. The description are of the key features of the operating system's function. The description is incorporated and integrated within the explanation.

## Operating Systems Key Features

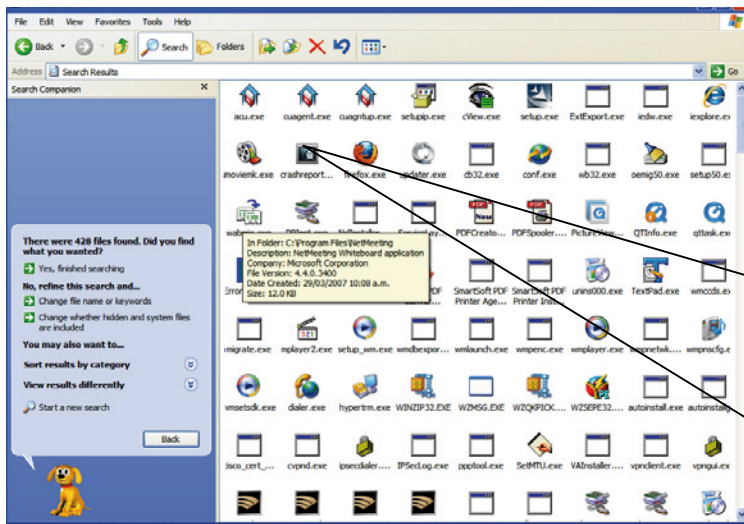
Some of the key features of an operating system are features associated with File Manipulation, Application Execution, and Input and Output

### File Manipulation



The operating system provides menus which allow files to be manipulated. In the menu multiple views of files are available organized by size, type, date modified... The operating system also keeps track of where the files are stored by registering where they are saved on the hard disk. A hard disk has several million files stored upon its surface. Registering the physical location of these files and representing this location in a way that allows the user and applications to find them is one of the purposes of an operating

### Application Execution



This screen shot shows a search of the program folder C:\program files for \*.exe files. The string of code which starts an application is stored physically on the hard drive. This code has a file name. As there are millions files stored on the system a user would find it difficult to access this file only by name. The operating system represents the EXE files as meaningful graphics that the user can associate with the application. The operating system groups the icons in menus so that the user can access the applications easily.

This text box identifies and describes several key features of operating systems. The explanation of why this arrangement exists is overt and the description is incorporated into the explanation.

The material has an explanation of the interaction of application and operating systems which would be sufficient for a judgement at Excellence.

### Input Output

Operating systems have two sets of outputs. One set of outputs goes to the hardware. This output is in the form of code. This code is translated into patterns of electrical impulses. Some of these impulses are returned to the operating system and appear upon the screen as output to the user. This output to the screen is the user interface. User interfaces often appear as GUI which allows the user to interact with the operating system and applications. The operating system allows a cycle of response to develop with the user. Other outputs which can affect the user are sound and printing.

The GUI represents where files are stored on the hard drive to the user through folders and sub folders and file icons. This all looks very neat and tidy so that the user can make sense of the information which might be physically stored at several different locations. This is the other

The candidate identifies and describes inputs and outputs with a fully developed explanation of purpose. There is sufficient explanation of the interaction to demonstrate the candidate's comprehensive understanding.

function of the operating system it registers where files. The operating system also performs routine tasks such as copying itself into memory at start up so that the user can access files and application.

Below is an example of the basic non GUI interface of the operating system. This show the type of coding that operators needed to be able to perform before the development of the GUI. In this screen shot DOS stands for direct operating system. The direct operating system is run by a set of commands that directly code the operating system response. GUI perform this same function and send similar code to the system.



```
C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.

C:\>dir
Volume in drive C has no label.
Volume Serial Number is A858-4170

Directory of C:\

22/01/2011  10:11 a.m.          181,776 AllApps
29/03/2007  10:11 a.m.              0 AUTOEXEC.BAT
29/03/2007  10:11 a.m.              0 CONFIG.SYS
10/01/2011  02:30 p.m.        <DIR>    Documents and Settings
10/11/2010  06:01 p.m.        <DIR>    I386
```

The candidate shows a very good understanding of the user input and system output.

The candidate identifies and describes the key feature. The description develops into an explanation relating to the purpose of the application.

## Applications Key Features

### Spread-Sheet Key Features

The candidate identifies and describes the key feature and there is a clear explanation related to purpose.

The cook book budget is recorded in a spreadsheet. Spreadsheets have key features. The key features are described in the callout boxes.

#### Cells

Microsoft Excel - Kai from Coast budget.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

Save as PDF

P23 =AVERAGE(B23:N23)

Kai From Coast Budget  
January 2010-January 2011

|                 | Jan | Feb | Mar  | Apr | May | Jun | July | Aug | Sept | Oct  | Nov   | Dec  | JAN | TOTALS | AVERAGE<br>PER MONTH |
|-----------------|-----|-----|------|-----|-----|-----|------|-----|------|------|-------|------|-----|--------|----------------------|
| <b>INCOME</b>   |     |     |      |     |     |     |      |     |      |      |       |      |     |        |                      |
| Advertising     | 0   | 0   | 0    | 0   | 0   | 0   | 0    | 0   | 0    | 3000 | 0     | 0    | 0   | 3000   | 230.77               |
| Donations       | 0   | 0   | 100  | 20  | 50  | 0   | 0    | 0   | 10   | 30   | 20    | 200  | 50  | 480    | 36.92                |
| Sales           | 600 | 600 | 300  | 200 | 200 | 100 | 100  | 50  | 100  | 200  | 400   | 1000 | 600 | 4450   | 342.31               |
| <b>TOTAL</b>    | 600 | 600 | 400  | 220 | 250 | 100 | 100  | 50  | 110  | 3230 | 420   | 1200 | 650 | 7930   | 610.00               |
| <b>EXPENSES</b> |     |     |      |     |     |     |      |     |      |      |       |      |     |        |                      |
| Printing        | 130 | 75  |      |     |     |     |      |     |      | 300  | 2000  |      |     | 2505   | 626.25               |
| Consumables     | 10  | 18  |      |     |     |     |      |     |      |      |       |      |     | 28     | 14.00                |
| Transport       | 0   | 0   | 0    | 0   | 0   | 0   | 0    | 0   | 0    | 100  | 0     | 0    | 0   | 100    | 7.69                 |
| Equipment       | 0   | 0   | 500  | 0   | 0   | 0   | 0    | 0   | 0    | 0    | 0     | 0    | 0   | 500    | 38.46                |
| <b>TOTAL</b>    | 140 | 93  | 500  | 0   | 0   | 0   | 0    | 0   | 0    | 400  | 2000  | 0    | 0   | 3133   | 241.00               |
| <b>BALANCE</b>  | 460 | 507 | -100 | 220 | 250 | 100 | 100  | 50  | 110  | 2830 | -1580 | 1200 | 650 | 4797   | 369.00               |

#### Cells

Cells receive input data. The cell address allows each piece of inputted data to have a separate identity so that it can never be confused with another piece of data. This allows the application to produce error free manipulation of information. The cell address allows the user to take raw data and turn it into uniquely identified and related output.

#### Formulas

The formula in Cell O is a piece of event driven code supplied by the application. The code is selected by the user and effects data in the defined ranges.

The selection or creation of formulas by the user allows the user to program the operation of the application.

This allows the user flexibility in manipulating the data into information. This information is store by the operating system to disk.

#### Formulas

Microsoft Excel - Kai from Coast budget.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

Save as PDF

O9 =SUM(B9:N9)

Kai From Coast Budget  
January 2010-January 2011

|               | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sept | Oct  | Nov | Dec  | JAN | TOTALS |
|---------------|-----|-----|-----|-----|-----|-----|------|-----|------|------|-----|------|-----|--------|
| <b>INCOME</b> |     |     |     |     |     |     |      |     |      |      |     |      |     |        |
| Advertising   | 0   | 0   | 0   | 0   | 0   | 0   | 0    | 0   | 0    | 3000 | 0   | 0    | 0   | 3000   |
| Donations     | 0   | 0   | 100 | 20  | 50  | 0   | 0    | 0   | 10   | 30   | 20  | 200  | 50  | 480    |
| Sales         | 600 | 600 | 300 | 200 | 200 | 100 | 100  | 50  | 100  | 200  | 400 | 1000 | 600 | 4450   |
| <b>TOTAL</b>  | 600 | 600 | 400 | 220 | 250 | 100 | 100  | 50  | 110  | 3230 | 420 | 1200 | 650 | 7930   |

### Columns and Rows and options

#### Columns and Rows

The primary purpose of a spreadsheet is to manipulated numerical data into information that has meaning to users. Cell O:23 above show the total balance of income over expenditure. This information represented by this balance is the result of the automatic operation of several user defined formulas in the sheet. The ability to use text to label the columns and the rows crates an arrangement of the data which is meaningful. This arrangement of information is saved at the command of the user or by the application through the operating system when the application exits RAM. The information is saved as code on the hard drive, this code is translated into the user readable arrangement when the system opens again and the file is recalled by the application represented

The options command in the tools tab on the standard tool bar allows the user to perform some configuration operations on the application. The configuration options allow changes of appearance and operation to occur. For example users can turn off the default automatic recalculation option. This feature of the supplications allows the user to which parts of the applications programming are accessed.

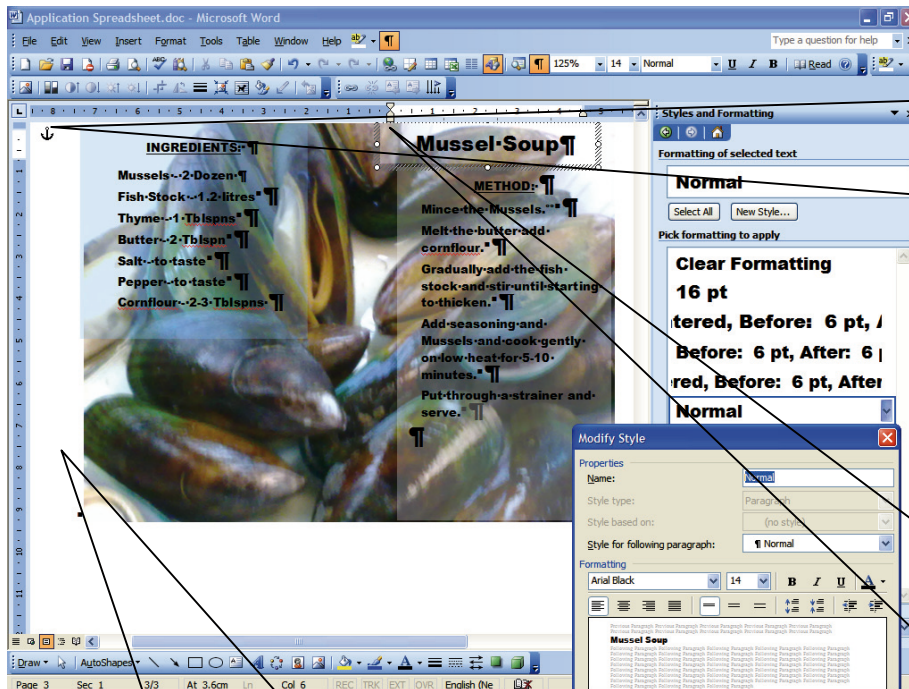
The candidate identifies and describes the key features. The e description develops into an explanation relating to the purpose of the application. There is sufficient explanation, which involved the interaction of the application and the operating system, that demonstrate the candidate's comprehensive understanding.

The candidate identifies and describes the key feature. The explanation developed here is an explanation of the purpose of the application. This level of explanation is generally apparent throughout the whole report. The report includes sufficient explanation that relates the application and the operating system to show comprehensive understanding.

## Applications Key Features

### Word Processor Key Features

#### TEXT



The purpose of word processors is to manipulate text into meaningful documents. To do this the processor received input from the keyboard and other applications and performs operations on it. The operations are pre-programmed. The text is saved by the processor as code in a file which can be recalled by the application.

#### Format

One of the operations performed on text is formatting. The text above has the format Font 16 Pt Arial Black Bold Centred. This format has been applied to the text because this format provides information to the reader. This format capability is loaded into RAM when the Operating system calls the application through the EXE file.

#### Alignment

Alignment is another way of providing information to a reader. Word processors have been programmed in a variety of ways for providing to provide alignment. The JPEG image has been overlaid with text boxes. The ability of the processor to position text anywhere on the page allows the author to create effects which are meaningful. The processor allows the user to interface with both the screen display and the printer through the format text box command. Users can adjust size position layout and fill and so on. Processors also allow other files to be inserted into text. For example the Jpg above was dragged from the processed images folder into a word document. The user input through the GUI as the JPEG is 'dragged and dropped' changes the applications output to the file stored in RAM. As the file is saved or closed the operating system will write the information about the JPEG position in the word document to the Hard disk.

The coding of the processor also allows the user to control display and printing of margins. One way this occurs is through adjustment of the page ruler. The ruler is a type of GUI (as is the text box) which represents the complex arrangement of code that represents the information. Background transparency allows text to be aligned over the background so that the background remains visible. Again this capacity is programmed into the processor to allow text to be manipulated to convey a user message.

### Justification of Application Selection.

The decision to use word to produce the cook book involved several factors.

Other software such as [Adobe PageMaker](#), and [Adobe InDesign](#) which was available did have considerable advantage over word in terms of processing features. Microsoft Word does not handle layouts which are as stable or as exact as other applications. Microsoft word does not process graphic information anywhere near as well as the desktop publishing applications above. The major difficulty presented by these applications is learning how to perform operations using interfaces other than word. Several members of the group would have needed extensive training before being able to begin work.

Similarly Windows does not handle graphics or image files as well as Mac systems however many users find the interface difficult simply due to familiarity with windows.

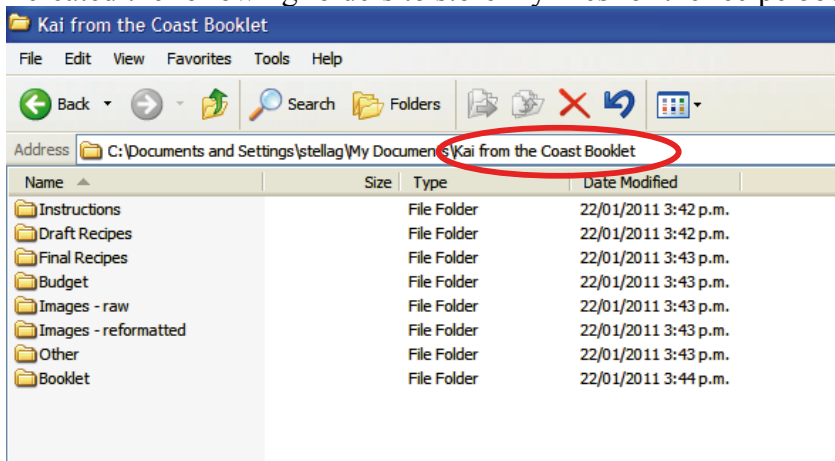
The word layouts were acceptable as source documents by the printer.

**The explanation of the application is at an Excellence level. The description is detailed, clear, and shows a very good understanding of the application. The description is also integrated with the explanation, is overt, and explains the interaction between the application and operating systems. This justification for application selection is somewhat weak but is sufficient enough within the context of this report for an Excellence grade.**



## File Management

I created the following folders to store my files for the recipe booklet.



The candidate's identification and description quickly progresses to an explanation. The candidate identifies and describes important aspects of file management including folder properties, user rights conventions, file protection, and use of storage devices.

Files need to be easily accessible and easily identified. Identifying files can be a big problem when a project is collaborative and involves several users over some time.

The file structure developed for the project is above. The properties of the instructions folder mean that for most users it read only. Only users with administrative rights were able to use this folder.

The following conventions were agreed for naming files. We agreed to keep it simple and call all draft recipes by the name of their primary ingredients and food type. So Mussel soup is a recipe for mussel soup. The fact that it is saved in the draft folder means it is a draft.

The overall budget and individual stakeholder budgets were held in the folder called 'Budget'. Any file held by an individual that they wanted to keep private had to be password protected.

When a recipe file had been edited and approved for use it was saved in final recipes folder using the word final in the file name. For example, 'Mussel Soup Final.doc'.

We also agreed that we would keep our work secure by following procedure and logging off when not using the system.

The original file formats we received from the photography class were JPEG. JPEG files were specified as the file format of choice because they achieve a 10:1 compression ratio with little loss of quality. The GIFF file format makes use of Lossless compression so that there is no trade off on quality. However given this file size becomes an issue. . File size is also an issue with BMP files. Secondly the file format is compatible with Word and a range of other applications. JPEG is the standard image format developed by the [Joint Photographic Experts Group](#).

CDs were used as to transport and store the files from the photographers. This meant that some selection was done before using network space. Also the CD provided back up. Selected files were stored in a Zip in the Images-raw directory. Selected images were processed using Photoshop to ensure that the image was at publication standard.

The agreement we had with the photographers was that by sending material through on the disk they had agreed to publication of their work. All of the images and that were used were acknowledged except were for reasons of privacy the author wished to remain private. All of the material stored on the school system was checked for suitability before it was stored. No objectionable material was found. Standard data protection processes such as password protection, logout protocols, and virus checking were followed. The major decision we needed to make was suitability for inclusion on the basis of quality.

Good comparison of file types for purpose.